

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of displaying a thumbnail image of a data file stored in a storage unit on a display unit, the method comprising:
 - (a) storing in the storage unit a first compressed code relating to an image for displaying the thumbnail image of the data file, the first compressed code being generated by dividing the image into a plurality of tiles and performing discrete wavelet transform and hierarchical encoding on pixel values of the image tile by tile, wherein a plurality of thumbnail images are capable of being generated from the first compressed code by extracting different portions of the first compressed code, where each of the plurality of thumbnails is associated with a different data file format;
 - (b) setting a resolution of the thumbnail image to be displayed in accordance with a format type of the data file, the thumbnail image being one of the plurality of thumbnails;
 - (c) extracting a second compressed code according to the resolution from the first compressed code stored in the storage unit to select the thumbnail image from the plurality of thumbnails, the second compressed code being different for different data file formats; and
 - (d) displaying the thumbnail image based on the second compressed code.

2. (Currently Amended) A server computer causing a thumbnail image of a data file stored in a storage unit of the server computer to be displayed on a display unit of a client computer in accordance with an instruction therefrom, the client computer being connected to the server computer via a network, the server computer comprising:

a thumbnail image storage unit to store in the storage unit a first compressed code relating to an image for displaying the thumbnail image of the data file, the first compressed code being generated by dividing the image into a plurality of tiles and performing discrete wavelet transform and hierarchical encoding on pixel values of the image tile by tile, wherein a plurality of thumbnail images are capable of being generated from the first compressed code by extracting different portions of the first compressed code, where each of the plurality of thumbnails is associated with a different data file format;

a thumbnail image setting acquisition unit to acquire from the client computer a resolution of the thumbnail image to be displayed, the resolution being set in accordance with a format type of the data file, the thumbnail image being one of the plurality of thumbnails;

a thumbnail image extraction unit to extract a second compressed code according to the resolution acquired by the thumbnail image setting acquisition unit from the first compressed code stored in the storage unit to select the thumbnail image from the plurality of thumbnails, the second compressed code being different for different data file formats; and

a thumbnail image transmission unit to transmit the second compressed code extracted by the thumbnail image extraction unit to the client computer.

3. (Previously Amended) The server computer as claimed in claim 2, wherein when a region of interest (ROI) is specified with respect to the data file, the thumbnail image extraction unit extracts the second compressed code according to the resolution set in the thumbnail image setting acquisition unit from part of the first compressed code stored in the storage unit, the part of the first compressed code relating to a tile of the ROI.

4. (Original) The server computer as claimed in claim 2, wherein the thumbnail image extraction unit extracts the second compressed code from only a luminance component of the first compressed code stored in the storage unit depending on the format type of the data file.

5. (Currently Amended) A client computer displaying a thumbnail image of a data file stored in a storage unit of a server computer on a display unit, the server computer being connected to the client computer via a network, the client computer comprising:

a thumbnail image setting unit to set a resolution of the thumbnail image in accordance with a format type of the data file, the format type being one of a plurality of different format types, each format type being associated with one of a plurality of thumbnail images, such that setting the resolution selects the thumbnail image from the plurality of thumbnail images that may be generated for different data file formats from a compressed code related to an image; and

a thumbnail image setting transmission unit to transmit the resolution set by the thumbnail image setting unit to the server computer.

6. (Original) The client computer as claimed in claim 5, wherein the server computer is a server computer as set forth in claim 2.

7. (Original) The client computer as claimed in claim 5, wherein in a case of receiving from the server computer a first compressed code according to the resolution set by the thumbnail image setting unit extracted from part of a second compressed code stored in the storage unit, the part of the second compressed code relating to a tile of an ROI, the thumbnail image is displayed in an enlarged size so that thumbnail images of data files of the format type are displayed in a single size.

8. (Currently Amended) A computer-readable recording medium storing a program for causing a server computer to execute a method of displaying a thumbnail image of a data file stored in a storage unit of the server computer on a display unit of a client computer in accordance with an instruction therefrom, the client computer being connected to the server computer via a network, the method comprising:

(a) acquiring from the client computer a resolution of the thumbnail image, the resolution being set in accordance with a format type of the data file, the thumbnail image being one of a plurality of thumbnails;

(b) extracting a first compressed code according to the resolution from a second compressed code stored in the storage unit, wherein a plurality of thumbnail images are capable of being generated from the first compressed code by extracting different portions of the first compressed code, where each of the plurality of thumbnails is associated with a different data file format, the second compressed code relating to an image for displaying the thumbnail image of the data file and being generated by dividing the image into a plurality of tiles and performing discrete wavelet transform and hierarchical encoding on pixel values of the image tile by tile, the first compressed code being different for different data file formats such that a different one of the plurality of thumbnails is selectable for different data file formats by selecting a different portion of the second compressed code; and

(c) transmitting the first compressed code to the client computer.

9. (Previously Amended) The computer-readable recording medium as claimed in claim 8, wherein when an ROI is specified with respect to the data file, the first compressed code

is extracted according to the resolution acquired from part of the second compressed code stored in the storage unit that is related to a tile of the ROI.

10. (Original) The computer-readable recording medium as claimed in claim 8, wherein extracting the first compressed code from only a luminance component of the second compressed code stored in the storage unit depending on the format type of the data file.

11. (Currently Amended) A computer-readable recording medium storing a program for causing a client computer to execute a method of displaying a thumbnail image of a data file stored in a storage unit of a server computer on a display unit, the server computer being connected to the client computer via a network, the method comprising the steps of:

(a) setting a resolution of the thumbnail image in accordance with a format type of the data file, the format type being one of a plurality of different format types, each format type being associated with one of a plurality of thumbnail images, thereby selecting the thumbnail image from the plurality of thumbnail images that may be generated from a compressed code related to an image for different data file formats; and

(b) transmitting the resolution to the server computer.

12. (Original) The computer-readable recording medium as claimed in claim 11, wherein in a case of receiving from the server computer a first compressed code according to the resolution extracted from part of a second compressed code stored in the storage unit, the part of the second compressed code relating to a tile of an ROI, the thumbnail image is displayed in an enlarged size so that thumbnail images of data files of the format type are displayed in a single size.